Cognitive-Behavioral Treatment for

PTSD Among People with Severe

Mental Illness: A Proposed

Treatment Model

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The lifetime prevalence of posttraumatic stress disorder (PTSD) is about 8%-14% in the general population, and trauma victimization (51%-98%) and PTSD (up to 42%) are even more prevalent among persons treated within public-sector mental health clinics. Despite this, individuals with PTSD and severe mental illness (SMI) who are treated within the public sector tend to receive inadequate mental health services. In addition, treatments for PTSD for this population remain undeveloped, with virtually no available empirical treatment outcome data to guide clinicians. We propose a model for a comprehensive, multicomponent cognitive-behavioral treatment program for this target population that includes elements of consumer education, anxiety management training, social skills training, exposure therapy, "homework" assignments, and long-term follow-up care. Special considerations for public-sector consumers with PTSD and SMI are addressed, as are directions for future research. (Journal of Psychiatric Practice 2004;10:26-38)

KEY WORDS: posttraumatic stress disorder (PTSD), severe mental illness (SMI), cognitive-behavioral therapy, public-sector consumers, social skills training, exposure therapy

Posttraumatic stress disorder (PTSD) is a severe and chronic mental illness that is defined by four primary criteria:¹

- A. the historical antecedent of a traumatic event
- B. persistently reexperiencing the traumatic event (e.g., intrusive memories, dissociative flashbacks, night-mares)
- C. the avoidance of stimuli associated with the event and/or numbing of general responsiveness
- D. continual symptoms of increased arousal (e.g., hypervigilance, sleep disturbance, irritability or anger).

Although PTSD symptoms currently are grouped into three general clusters (reexperiencing, avoidance/numbing, arousal), symptoms of reexperiencing, along with the associated physiological reactivity, are what best distinguish PTSD from other affective or anxiety disorders. There is also a distinct set of neurobiological markers (e.g., changes in the hypothalamic-pituitary-adrenal axis, noradrenergic, and serotonergic function) that differentiates PTSD from other affective and anxiety disorders. Further, there is evidence supporting the prominence of autonomic symptoms of anxiety, such as heightened autonomic reactivity to trauma-related cues, in persons with PTSD.

The syndrome of PTSD is also associated with significant social maladjustment,⁷ poor quality of life,⁸ medical comorbidity,^{9, 10} and general symptom severity.¹¹ This includes social avoidance,¹² social phobia,¹³ guilt,¹⁴ difficulties with anger and anger control,¹⁵ cognitive impairment,¹⁶ unemployment, and family discord.^{17, 18} The syndrome is complicated by the fact that PTSD is typically accompanied by multiple comorbid Axis I and II disorders, including substance abuse, major depression,

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psychosis, personality disorders, and other anxiety disorders. ^{19, 20} Taken together, data indicate that PTSD is a significant psychiatric disorder resulting in considerable emotional distress and social maladjustment, and often presents as a complex clinical picture that constitutes a significant treatment challenge. These additional problems constitute what some authors have labeled as "complex PTSD," to describe the manifestation of PTSD most commonly seen in persons with severe mental illness (SMI).²¹

Epidemiological estimates of PTSD put the lifetime prevalence as high as 8%-14% in the general population:22, 23 among certain disadvantaged groups, history of trauma exposure and PTSD rates may be even higher. Recent studies show that trauma victimization is highly prevalent (51%-98%) among persons with SMI, such as schizophrenia, schizoaffective disorder, and bipolar disorder, who are treated within the public sector.²⁴⁻²⁷ For example, in a multisite study, it was found that 98% of community mental health center consumers with SMI had a history of trauma exposure and 42% had diagnoses of PTSD.25 Furthermore, recent evidence suggests that the costs associated with PTSD, both to individuals and to society at large, are extremely high. 28, ²⁹ In fact, among the general population, PTSD is associated with nearly the highest rate of medical and other service use, and therefore may be one of the costliest mental disorders.30-32 Thus, it is clear that trauma has a prominent impact on the public health.

Despite the severity of the syndrome, those with PTSD tend to receive inadequate mental health services.33-35 Even the routine assessment of trauma history remains inadequate in most public mental health clinics, and PTSD symptoms often go unrecognized. 25, 36, 37 For example, in a multi-site study conducted within community mental health centers across four states, it was found that, while 42% of the sample met diagnostic criteria for PTSD, only 2% of the sample were assigned the diagnosis in their medical record.25 This is especially unfortunate because a growing body of data supports the reliability of trauma and PTSD assessment among persons with severe mental illness.38 Accordingly, the National Association of State Mental Health Program Directors (NASMHPD) and many others concerned with public health policy have recently made a call to action on behalf of the unmet service needs of trauma survivors. At least 15 state Departments of Mental Health (e.g., South Carolina, Oregon, New Hampshire) have now initiated efforts to better address these needs via formal state-wide trauma initiatives.³⁹ Unfortunately, there are virtually no empirical outcome data concerning treatment of PTSD in people with SMI who are treated within public-sector mental health clinics, ⁴⁰ a population with high levels of psychiatric comorbidity, substance abuse, symptom chronicity, and impaired social and occupational functioning.

Based on the studies described above, it is clear that there are alarmingly high rates of trauma exposure and PTSD comorbidity among people with SMI treated in public-sector settings,41 and that these problems typically go untreated within the mental health system. This is primarily due to inadequate assessment of trauma exposure and PTSD symptoms and the lack of treatments that have been empirically validated with this population, both of which are critical in guiding decisions about service delivery in public-sector settings. We therefore propose a heuristic framework that may be used to guide treatment development in outcome studies with SMI populations suffering from comorbid PTSD. This framework is based on a theoretically driven, multi-component approach to treatment. Such an approach to treatment has already been shown to be efficacious for other populations suffering from PTSD. Within the heuristic framework provided, particular attention is paid to aspects of the proposed treatment that are likely to be unique to SMI populations. Such an organizing framework may be a fruitful starting point for constructing treatment packages that can be evaluated in randomized controlled trials. In the absence of available randomized control trial data to guide treatment decisions at this time, we hope to provide an informed treatment model for frontline clinicians who are currently working with trauma survivors. Based on available data, it is our opinion that the scope of this problem is of sufficient magnitude that some treatment recommendations for this population are warranted at this time, since practitioners currently have virtually no treatment outcome literature to guide service delivery. These clinicians will continue to work with such patients well in advance of the arrival of good randomized clinical trial data (which will take years to come to fruition). Thus, we see the proposed model as a clinical intervention guide that may prove helpful for an immediate problem, pending evaluation in future outcome studies.

OVERVIEW OF CURRENTLY AVAILABLE TREATMENTS OF PTSD

Compared with other psychiatric disorders, there are relatively few data available regarding treatment out-

come, service costs, cost-effectiveness, and appropriateness and quality of care for persons with PTSD. To date, only a small number of randomized clinical trials of pharmacological treatment in trauma survivors with PTSD have been published. These suggest that antidepressant medications (e.g., SSRIs) offer hope for modest symptom improvement. 42-44 The literature on psychotherapeutic interventions for PTSD is also at a relatively early stage of development. 45-47 Although a range of psychotherapeutic interventions for chronic PTSD has been suggested, 48 cognitive-behavioral treatments, emphasizing various methods of exposure or cognitive restructuring, have been the most carefully studied and show the most promise. 49-57 In fact, evidence-based treatment guidelines for PTSD focus heavily on cognitive-behavioral interventions. 48,52 A brief overview of the current treatment literature for PTSD is presented here in order to provide background for the treatment model we propose.

Treatment Outcome Data for PTSD among Persons with SMI

To date there are virtually no treatment outcome data for the treatment of PTSD in people with SMI other than a handful of single-case studies and open trials. 40 Further, the open trials that have been published have been limited by a failure to report quantitative pre- and post-treatment measures, identify specified target symptoms, include clear inclusion and exclusion criteria, include male participants or survivors of nonsexual abuse, or use manual-based treatment programs that can be replicated. 40 However, several investigators are currently in the early stages of attempting to develop, adapt, and evaluate appropriate treatments for PTSD in populations with SMI. 40, 54, 58, 59

Treatment Outcome Data on Exposure Therapy

A number of exposure-based strategies for the treatment of PTSD have been suggested. Among civilians with PTSD, exposure therapy has been found to be efficacious in a number of randomized, controlled trials. In an early comparison between exposure, stress inoculation training, supportive counseling, and a waitlist control, it was found that all active treatments reduced PTSD severity, although exposure produced superior outcome on PTSD symptoms at follow-up.⁶⁰ Although superior to the other treatment groups in terms of percentage of patients still meeting PTSD criteria at post-treatment, 60% of patients in this study remained symptomatic in the

exposure condition. In another study, exposure was found to be partially efficacious and superior to relaxation training, equally effective as cognitive restructuring, and not enhanced by cognitive restructuring.61 End-state functioning in this study was indicated by a 50% drop in PTSD symptoms, which, although promising, suggests that many patients continue to experience aversive symptoms after treatment. In yet another study, exposure was also found to be helpful and to be equally as effective as cognitive therapy, although neither resulted in complete improvement. 62 Finally, in a comparison between exposure, stress inoculation, combined exposure and stress inoculation, and a waitlist control, it was found that all three active treatments reduced the severity of PTSD compared with the waitlist group, although exposure alone was superior to the other two active treatments in the intent-to-treat sample.63 Although an improvement from previous findings, 40% of participants in the exposure condition remained PTSD symptomatic at follow-up, indicating that exposure alone is often not sufficient.

Among veteran samples, intensive exposure has also been proven partially efficacious. In an early trial with Vietnam veterans, it was found that the exposure group scored significantly lower than a control group on some clinical measures, and also received lower therapist ratings of symptom severity across most dimensions, and that improvements were maintained at 6-month follow-up.64 However, significant differences were not found in therapist ratings of emotional numbing or sleep disturbance, nor were they found on any measure of social adjustment. Results from another study indicated that the exposure group showed superior outcome on consumer ratings of sleep, nightmares, and intrusive thoughts, but no differences were found in heart rate reactivity to trauma-related cues, and only minimal differences were found in measures of trait anxiety and depression when compared with a group receiving "standard" treatment only (i.e., supportive therapy with no exposure component).65 The authors concluded that exposure was an important component of PTSD treatment, but should be used to supplement other behavioral approaches. Results from another study demonstrated that subjects receiving exposure showed statistically significant improvement across most psychological and behavioral rating measures, although no significant differences were found between the groups on physiological outcomes of anxiety.66 Finally, results from two uncontrolled studies support the partial efficacy of exposure for treating PTSD symptoms in veterans. 67, 68

Implications

Data from these studies indicate that intensive exposure helps reduce the hallmark features of chronic PTSD (e.g., symptoms of intrusion and physiological reactivity) and much of the general anxiety that accompanies it. In fact, according to the Consensus Statement on Posttraumatic Stress Disorder by the International Consensus Group on Depression and Anxiety, the most appropriate psychotherapy for the disorder is exposure. 49-51 Overall, studies that have examined the efficacy of exposure treatment for PTSD in veteran samples have yielded mixed gains across symptom measures. Studies in civilian samples, while yielding symptom improvement on the majority of outcome measures, reveal that exposure alone is not sufficient for a significant number of patients. Furthermore, although exposure may reduce maladaptive arousal and fear, it does not address basic skill deficits, help reestablish impaired relationships, address the problem of unemployment, or improve anger control. Therefore, exposure therapy does not appear to address the marked social deficiencies characteristic of chronic PTSD. Consistent with this view, many authors have suggested that a behavioral treatment program targeting specific areas of dysfunction via different behavioral strategies and treatment phases is necessary to address the complex and myriad symptoms associated with this condition.⁶⁹ In fact, in the treatment of chronic PTSD, exposure therapy has very recently been combined with stress inoculation,63 cognitive-behavioral group behavioral family therapy,71 anxiety management training (e.g., coping skills),72 substance abuse treatment,73 inpatient milieu therapy,74 and specifically targeted social skills training.67 These preliminary data indicate that stress inoculation and behavioral family therapy did not add to the benefits of exposure therapy, while uncontrolled data suggest that there is some promise for general anxiety management, cognitive-behavioral group therapy, targeted substance abuse components, and social skills training.

Given the special considerations that arise in treating populations with SMI, treatment programs are needed that are feasible for persons with psychiatric comorbidity, substance abuse, symptom chronicity, and severely impaired social functioning. Further, given the economic limitations and scarce resources of most public-sector mental health clinics and hospitals, treatment programs may need to be designed for group administration by clinicians who represent a range of disciplines (e.g., social workers, psychologists, nurses) and levels of training

(e.g., bachelor through doctoral degrees). The development of effective and appropriate treatments for this population is urgently needed, and such treatments should be based upon theoretically grounded interventions tested in carefully controlled clinical trials.⁴⁰ The next section of this article describes a proposed treatment model that is based on research conducted with other populations of trauma survivors.

A PROPOSED COGNITIVE-BEHAVIORAL TREATMENT MODEL

We propose that a multicomponent cognitive-behavioral treatment model is appropriate for chronic and severe PTSD among people with SMI who are treated in public-sector mental health clinics. Such a model has been successfully implemented with other anxiety disorders. such as social phobia 75 and chronic PTSD in combat veterans.⁶⁷ Furthermore, such comprehensive treatment programs have long been recommended for persons with SMI treated within public mental health systems.^{76, 77} This model includes a comprehensive treatment designed specifically to target various aspects of the clinical syndrome associated with PTSD in persons with SMI, particularly emotional and physiological reactivity to traumatic cues, intrusive symptoms and avoidance behavior, impaired interpersonal skills and emotion modulation (e.g., anger control), and reduced range of enjoyable social activities. The program incorporates the PTSD psychosocial treatment approach with the most empirical support (exposure therapy) with a social skills and anxiety management training component that has been shown to work for other clinical populations.

It should be noted at this point that this proposed treatment model is an intervention guide that should be administered with flexibility. The exact sequencing, implementation, and dose of components may vary across settings and among patients, but clinicians and investigators may use this model as a starting point for developing, delivering, and evaluating treatment with this population. The major components of this proposed model are briefly described below (see Table 1 for an overview).

1. Education

All consumers are provided with a general overview of chronic PTSD, including prevalence rates of trauma and PTSD, common patterns of expression, longitudinal course, comorbidity of other anxiety and Axis I disorders, etiological pathways, impact on social functioning,

Table 1. Proposed cognitive-behavioral treatment model for PTSD in persons with severe mental illness:

Multicomponent program overview

Phase	Component	Number of Sessions
Phase 1		
	Education	1–3
	Anxiety management skills training	1–3, and then incorporated throughout
	Social skills training	6–14
	Homework	Incorporated throughout
Phase 2		
	Exposure therapy	6–12
	Homework	Incorporated throughout
Upon con	npletion	
	Long-term follow-up care	Ongoing

and a review of current treatment strategies. This phase is important in ensuring that consumers not only develop a realistic understanding about treatment prognoses, but also an overall positive expectancy regarding the efficacy of cognitive-behavioral treatment. This phase is also used to educate consumers about the treatment they will be receiving and what will be expected from them with regard to their participation in the treatment program. We believe this component can be effectively implemented in 1–3 sessions.

2. Anxiety Management Skills Training

The purpose of anxiety management skills training is to teach consumers to better manage their anxiety and stress levels, including the control of panic attacks. A structured anxiety management skills training program, administered in a group format, can be targeted towards the set of both specific and general anxiety symptoms that trauma survivors often experience. This may include control of generalized anxiety, panic attacks, obsessive ruminations, and compulsive behaviors. Programs for supplementing exposure therapy with anxiety management skills training have been successfully used with other populations of trauma survivors^{72, 78} and can include elements of relaxation training, breathing retraining, and panic control. Providing consumers with anxiety management skills before exposure may help them to tolerate exposure sessions more effectively. Anxiety management skills training can be effectively implemented in 1-3 sessions and should be combined with other components of the model (e.g., Education, Exposure) and used throughout the program.

3. Social Skills Training

The purpose of social skills training is to teach consumers the requisite skill foundation for effective and rewarding social interactions. While trauma survivors may vary widely with respect to basic social skills, most have room for improvement. A structured social skills training program, administered in a group format, can be targeted towards the cluster of symptoms that do not appear to be helped by exposure alone. In other words, interpersonal difficulties commonly associated with chronic PTSD, such as social anxiety, social alienation and withdrawal, excessive anger and hostility, explosive episodes, and marital and family con-

flict, may be targeted via a number of specific interventions. Social skills training includes instruction, modeling, behavioral rehearsal or "role plays," feedback, and reinforcement. Following each session, consumers are given homework assignments to allow further practice and consolidation of newly acquired skills. Programs for supplementing exposure therapy with social skills training have been successfully used with other anxiety disorders, such as social phobia, 75 as well as with PTSD. 67, 79 Social skills training can serve multiple functions, can be effectively implemented in 6–14 sessions, and should include elements of the following:

- Social environment awareness teaches the nuances of when, where, and why to initiate and terminate social interactions. This includes the verbal and nonverbal mechanics of successful social encounters, including identification of appropriate conversation topics, specific exercises designed to enhance attentional and listening skills, and effective topic transitions.^{75, 79}
- Social skills enhancement teaches how to establish and maintain friendships, appropriate telephone skills, and assertive communication. This component should be designed to help consumers learn those skills that are necessary to engage in new and diverse social activities in order to increase social repertoires and the likelihood that social interactions will become intrinsically rewarding. 75, 79
- Anger management teaches how to better manage anger and other intense emotions. It should be designed to reduce temper outbursts and the problematic expression of anger. Specifically, this component

of psychiatric medications (e.g., antipsychotics, antidepressants). With the possible exception of benzodiazepines, there is no reason to expect that psychotropic medications will interfere with CBT for PTSD. In fact, treatment guidelines suggest that pharmacotherapy and psychotherapy for PTSD are likely to be complementary.48, 49 Most manualized treatments for PTSD range from 6-36 sessions, administered over a period of 4-24 weeks. The model we have outlined above is likely to require 15-30 sessions and could be paced differently depending on the nature of the treatment setting. For example, in a day-hospital setting, sessions could be offered 2-5 times each week, in which case the treatment program could be completed in 4-8 weeks; alternatively, in an outpatient setting, sessions might be offered 1-3 times a week and the treatment program would require a longer period for completion. For a more detailed discussion of the decision-making process for choosing treatments for individuals with PTSD, readers are referred to Falsetti.91

The Role of "Peer Support" and Family Relationships

Recently, consumer advocacy groups have called for a shift from a focus on treatment by mental health professionals to services that are consumer-based. These groups have advocated for more services that are peerled, such as peer hotlines, consumer partners, and peer support groups. This movement has largely been a reaction to the perceived inattention to consumers' needs and outright abuses that have occurred within the mental health system. Research on the efficacy of peer-supported services is presently lacking, although some research is underway. While the benefits derived from peer support groups may not be known yet, there is some evidence that consumers benefit from participation in group treatment due to a reduction of shame and social isolation and the provision of support. 92

A related issue is the role that family members might play in PTSD treatment. Family and other social support networks have a potentially important role in trauma recovery and general emotional well-being. During the social skills training element of our treatment model, consumers are encouraged to engage in a number of activities that expand their repertoire of social activities, improve the quality of their social relationships, and reduce their social isolation. Many of these activities may be accomplished with family members. However, at this point we do not recommend that family be included more directly in treatment sessions

because their participation cannot be reliably counted on in many cases and they may have some connection to the traumatic histories of consumers (e.g., childhood sexual abuse) that would introduce the potential for harm.

General Implementation—Group Versus Individual Administration

In order to make the treatment feasible for use in a community mental health system, treatment programs will need to be designed for administration in a group format. This serves several purposes. First, it makes service delivery more efficient. Second, it allows for more effective practice of social skills and social activities. Third, it makes use of a natural "peer" group, which many consumers are now requesting, and provides social support. Positive outcomes have been reported using group administered CBT treatment for PTSD with males and females for a range of different types of traumatic experiences. 92 However, there are recent data indicating that implementing exposure therapy for PTSD in group format is not effective.93 Therefore, although we suggest that a group format is appropriate for the education, anxiety management training, and social skills training components (i.e., "Phase 1"), we believe that exposure therapy (i.e., "Phase 2") should be administered in individual therapy sessions.

General Implementation—The Treatment "Overload" Issue

One reasonable concern some might have about the proposed treatment program is that it may be too complex and simply "too much" for populations with SMI. However, such multicomponent models have been successfully used with other seriously mentally ill groups, such as veterans with PTSD⁶⁷ and persons with schizophrenia. ⁸⁴ Furthermore, from the consumer's perspective, this program will essentially consist of only three phases: education/motivation/anxiety management skills (which will be woven together); exposure; and coping/social skills. The homework component will essentially be an extension of each phase.

Addressing Comorbid Alcohol and Drug Abuse/Dependence

There has recently been a growing recognition of the importance of integrating substance abuse and psychiatric treatment (e.g., for PTSD) for people with SMI.⁹⁴

Integrated treatments markedly reduce substance use and psychiatric symptoms, improve housing adequacy and community tenure, and decrease use of expensive hospital and criminal justice services. 95 Cognitive-behavioral treatment approaches emphasizing social and coping skills and relapse prevention have shown promise for use with persons with co-occurring substance abuse and SMI96 or anxiety disorders, 97 and for dissemination and use in community clinics. 98 Further research is necessary to help determine the most effective approaches for combining treatment of PTSD and substance abuse for people with SMI.

Clinician Education and Training

One obstacle to the provision of adequate mental health services in the public sector is the relative lack of trauma-related training and associated clinical experience among clinicians. In fact, a recent state-wide clinician survey found that most public sector clinicians in South Carolina had very little training focused on trauma issues, with only 30% reporting more than 6 hours of trauma-related training in their careers.39 Thus, an important aspect of improving treatment delivery for PTSD will include effective programs for educating and training clinicians. While efforts are underway to manualize the cognitive-behavioral treatment program described above, training efforts that include modeling, case-presentations, and structured practice always enhance the use of such treatment manuals. Furthermore, it is expected that there may be some resistance to the use of exposure therapy and other elements of the cognitive-behavioral intervention that may require special efforts to overcome.

Treatment Compliance and Dropout

Given the literature suggesting that treatment compliance among individuals being treated for schizophrenia is poor, ⁹⁹ the model presented here for treating PTSD in populations with SMI might seem ambitious. However, it is worth considering that the majority of the studies that have documented compliance or drop-out problems in populations with SMI have assessed medication adherence during follow-up periods, not treatment adherence to CBT interventions in day-hospital settings. Recent data suggest that cognitive-behavioral interventions of the type we are proposing actually increase compliance with schizophrenia treatment protocols. ¹⁰⁰ Moreover, cognitive-behavioral strategies used as adjunctive therapies (i.e., CBT interventions aimed

at the symptoms of SMI rather than just medication compliance) are portable from one setting to another, and result in higher compliance rates than what one might expect. In fact, some studies have shown compliance rates with CBT and medication interventions as high as 75%–85%. ¹⁰¹ The use of CBT strategies in individuals with schizophrenia has been reviewed in more detail elsewhere, ¹⁰² and although it remains an open empirical question at this point, there is no reason to expect that persons with SMI would be significantly less compliant with CBT treatment for PTSD than CBT targeted toward other aspects of their mental illness.

Future Research Directions

A great deal of future research is needed to determine the effectiveness of this and other PTSD treatment models for people with SMI.¹⁰³ Fortunately, recent research suggests that trauma survivors are not too fragile to participate in trauma-related treatment outcome research, even in instances of acute and recent traumatic experiences.¹⁰⁴ Carefully controlled clinical trials are needed to establish the efficacy of this and other models for use with the population of interest. Research will then be needed to determine the effectiveness of this treatment approach in clinical practice settings and to determine the specific parameters of how its effectiveness may be maximized. Important questions include:

- What is the best order in which to sequence the different components for different consumers?
- What is the optimal "dose" for each of the different components?
- What strategies (e.g., contingency management) will help enhance motivation for change and compliance with treatment protocols?
- What is the most effective and/or most efficient way to engineer the exposure component for different consumers?

Research is also needed to address questions about treatment implementation across clinical settings (e.g., outpatient clinics, day hospitals, inpatient hospitals), combination therapies, and effective methods for training clinicians and disseminating knowledge throughout public systems. In addition, important research questions will need to be addressed regarding which are the most effective intervention approaches. For example:

 How does the effectiveness of exposure therapy compare to that of cognitive processing therapy⁵⁵ or cognitive restructuring⁴⁰? • How does the effectiveness of the social skills and anxiety management training compare to those provided by other treatment programs, such as "Seeking Safety" or "Trauma Recovery and Empowerment" or "Concerted efforts are underway in several states to begin addressing these and other related questions.

CONCLUSIONS

Data show that the lifetime prevalence of PTSD is about 8%-14% in the general population, and that trauma victimization (51%-98%) and PTSD (up to 42%) are even more prevalent among people with SMI who are treated within public-sector mental health clinics. Furthermore, recent evidence suggests that the costs associated with PTSD, both to individuals and society at large, are extremely high. Among the general population, PTSD is associated with nearly the highest rate of medical and other service use, and therefore may be one of the costliest mental disorders. Thus, it is clear that trauma has a prominent impact on public health. Despite this, individuals with PTSD tend to receive inadequate mental health services and treatments for chronic PTSD among public-sector consumers remain strikingly undeveloped. In fact, at this time, there are virtually no empirical treatment outcome data for PTSD among people with SMI who are treated within the public sector, a population with high levels of psychiatric comorbidity, substance abuse, symptom chronicity, and impaired social and occupational functioning. We propose a model for a comprehensive, multicomponent cognitive-behavioral treatment program that includes elements of consumer education, anxiety management training, social skills training, exposure therapy, "homework" assignments. and long-term follow-up care. Special considerations for public-sector consumers include a focus on treatment implementation with severely mentally ill persons, the role of peer support, and clinician education and training. Empirical research is needed to evaluate the efficacy and effectiveness of this treatment model with this population and to address questions about treatment implementation across clinical practice settings. We are in the early stages of study to evaluate the proposed treatment model in a community mental health center in South Carolina.

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